K9-0019

ecology and environment, inc.

6440 HILLCROFT AVENUE, HOUSTON, TEXAS 77081, TEL. 713/771-9460

International Specialists in the Environment

CERCLIS#: TXD987966900

SITE ASSESSMENT REPORT

X-Ref EM Vol #1

FOR

JENSEN DRIVE DRUM SITE
Houston, Harris County, Texas

Prepared for

EPA - Region VI
Emergency Response Branch

J. Chris Petersen
Deputy Project Officer

By

Ecology and Environment, Inc.
Technical Assistance Team

November 10, 1988

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DATE: November 10, 1988

TO: Pat Hammack, OSC
EPA Region VI, Emergency Response Branch

THRU: J. Chris Petersen, DPO
EPA Region VI, Emergency Response Branch

THRU: Kishor Fruitwala, TATL
Region VI, Technical Assistance Team

FROM: Patricia Herrera
Region VI, Technical Assistance Team

SUBJECT: Site Assessment of Jensen Drive Drum Site
Houston, Harris County, Texas

TDD #: T06-8810-28
PAN #: TTX 0829 SAB

Introduction

The EPA On-Scene Coordinator (OSC) and the Technical Assistance Team (TAT) performed a site assessment at the Jensen Drive drum site located in Houston, Harris County, Texas. This assessment was conducted to determine whether conditions at the site present a potential threat to public health and welfare and/or to the environment. If so, the site would be eligible for immediate removal status in accordance with the National Contingency Plan guidelines.

Current Harris County deed records indicate the property is owned by LEAS-IT, Inc. of Harris County, Texas. During a site assessment at the nearby Davis Street site, Mr. Winston informed EPA that a Mr. J. D. Gray owned the property. Mr. Gray is a representative for LEAS-IT, Inc.

I. Purpose

This memorandum requests approval for a Removal Action pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) at the Jensen Street Drum site.

This action meets the criteria for initiating a removal action under Section 300.65 of the National Contingency Plan (NCP) and is anticipated to require less than twelve months and under $2 million for completion.

II. Background

A. National Significance:

This site is not of national significance.

B. Site Description:

The Jensen Drive drum site is located at 3116 Jensen Drive, two blocks south of Collingsworth in northeast Houston. It is in a light industry and residential area. Inhabited houses are as close to the site as 30 feet. Three churches are located near the site, and a school is less than one-half mile away.

The site itself occupies a rectangular lot measuring approximately 400 feet by 150 feet. There is a warehouse in the center of the site with two open bay doors facing east and west. The site is surrounded by a five foot chain link fence. The side facing Jensen Drive is secured only by a gate three feet high and ten feet wide. The gate is chained and pad locked. A key is kept across the street at Winkman and Doggett Auto Parts.

There are a number of vehicles on the site. These vehicles include cars, trucks and trailers. Charles Lee of Workman and Doggett Auto Parts informed TAT that some of the vehicles belong to the Auto Parts store. Mr. Lee also told TAT that a car stripping operation was going on at the site until the Houston Police shut it down.

Over 400 drums of unknown content are present on site. Many of the drums are empty and/or overturned. The drums were checked for liquid contents. Those that had any contents were numbered consecutively with spray paint. The drums are in varying stages of deterioration and some are bulging. Measurements taken of the drum contents indicated material present with pH ranging from 0-13. For example, drum #81, labeled sulfuric acid, had a pH of 0. Drum #82, immediately adjacent to #81 had a pH of 13. Many of the drums bore labels. Information compiled from the labels is presented in Table 4 included in the attachment.

Vegetation on site consists of weeds and grass. The perimeter of the site is overgrown. Various areas show stress vegetation. There are areas of chemical stained soil evident throughout the site. Two large areas of soil discoloration where present. One is on the northeast corner of the site at the fence line. The other, at the southeast corner of the site, is also adjacent to the fence line. The land in the area is generally flat. Buffalo Bayou is less than one mile south of the site (see topographic map attachment).

The warehouse contains 91 steel drums, 20 filterboard barrels, 10 compressed gas cylinders and a 500 gallon polypropylene vat that is about half full. There is a small locked office in the southwest corner of the warehouse. This office has 10 five gallon cans. There is a loft along the interior south side of the warehouse where lumber is stored.

Ambient air monitoring was conducted with an explosimeter, the RAM 10, and the HNU photoionization detector. No explosive or oxygen deficient atmospheres were observed. No radiation above background was present. HNU readings above background where observed in various locations throughout the site. Outside of the warehouse several readings in the range of 3-5 (isobutylene equivalency) ppm were measured. Inside the warehouse, three separate readings of 15 ppm, 50 ppm and 110 ppm were measured.

C. Incident Characteristics

Historical accounts on this site are limited. However, the site was known to be the location of the May-Cooperidge Drum Reclamation Co. owned by Fred Winston. A complaint by an anonymous caller prompted the Texas Water commission (TWC) and the City of Houston to file complaints against Mr. Winston. Mr. Winston moved his operation to 3116 Jensen Drive from 1705 Davis Street, another site which is currently under EPA evaluation.

D. Quantity and Types of Substances Present

On 30 August 1988, Technical Assistance Team personnel collected and transported a vat sample, six drum and two soil samples to the EPA Houston laboratory for BNA and metals analysis. The approximate location of each sample is shown on the attached site sketch.

The results of analysis are summarized in the following tables. The laboratory report is included in the attachments. Inorganic analysis results for drum samples are shown in Table 1, also included is the EPA drinking water standards if applicable. Table 2 summarizes the inorganic results for the two soil samples. Table 3 is a summary of the organic analysis for both drum and soil samples. It included the concentrations and the toxicity properties of each compound of interest.

There are a number of inorganic compounds on site which can be considered toxic. Notably the levels of iron, lead and manganese are elevated. Those organic compounds listed as hazardous substances in 40 CFR 302.4 were considered of interest and reported with the pertinent toxicological information. The list is lengthy and includes a number of carcinogens.

E. State and Local Authorities Role:

F. Federal Action To Date:

On 30 August 1988, the EPA Emergency Response Branch conducted a site assessment at this site to evaluate the potential threat to the public health on the environment which exists at the site.

G. NPL Status

This site is not on the National Priorities List.

III. THREAT TO PUBLIC HEALTH, WELFARE OR THE ENVIRONMENT

A. Three obvious threats to public health are present at the Jensen Street Site:

1). High concentrations of metals - metals can be highly toxic if ingested or inhaled. Metals may be transported offsite via airborne or surface migration and affect the surrounding properties.

2). Numerous toxic organic compounds - there are a large number of organic compounds that are hazardous substances. These compounds may be transported off site via airborne or surface migration and affect the surrounding properties. Headspace monitoring indicates the presence of volatile organic compounds which could potentially be toxic, explosive, flammable and/or carcinogenic. Of the compounds listed many when heated decompose and emit toxic fumes. A fire at the site could potentially cause an airborne disaster.

3). Numerous drums on-site - these drums are in varying stages of deterioration and many are leaking unknown compounds. The metals and hazardous organic compounds present a direct contact, inhalation and ingestion threat because of the deteriorating nature of the drums.

B. Threats to the Environment:

A release of these materials would contaminate the surrounding soil, water, and drainage area. An air release, possibly from a fire, would result in a much greater extent of contamination of the surrounding air, soil, water and vegetation.

IV. Enforcement

V. Proposed Actions and Costs

VI. Expected Change In the Situation Should No Action Be Taken

Without further attention, the containers will continue to deteriorate. If this is allowed, the health and welfare of the area residents will be endangered. If the materials are inadvertently allowed to mix with one another, a fire and explosion danger to the local citizens may result. In the event of a fire toxic fumes would be emitted, endangering the local citizens in the area.

If a removal is not conducted soon, it is likely that a removal would have to be conducted under emergency conditions. The more time these containers are allowed to deteriorate, the greater the probability for the liberation and release of chemical substances to the atmosphere with detrimental health effects.

VII. Important Policy Issues

Not applicable

VIII. Recommendation

Because conditions at the site meet the NCP section 300.65 (b) (2) criteria for a removal, I recommend your approval of the proposed removal action. The estimated total project costs are of which are for extramural cleanup contractor costs. You may indicate your approval or disapproval by signing below.

Table 1
Inorganic Analysis Results from Drum Sample Jensen Drive Site, With
laboratory numbers 8TFAKC46 01 through 10
Results Reported in ug/L

Element	01	02	05	06	08	09	10	Drinking Water Std
Aluminum			722		203	279	2480	-
Antimony	520	356						-
Barium		122	144	74			153	1
Beryllium					50	67		11*
Cadmium	18							10
Calcium		52900	1610	14300	1800	3320	2400	-
Chromium		106	264				39	50
Cobalt		1800	3190					-
Copper	388	88	9760	50			162	1000
Iron	83	20700	7960	9460	440000	494000	1050	300
Lead		269	57300			133	129	50
Magnesium		424000	8150	1150			1940	-
Manganese		2990	132	95	5820	6000	46	50
Nickel		52	50					-
Potassium		20100		5130			16600000	-
Sodium		124000	2310	26800	5660	6060	3140000	-
Zinc	661	448	1770	302	72	144	177	5000*

- No EPA drinking water standard.

* Suggested criterion for drinking water, there is no EPA drinking water standard.

Table 2
Inorganic Analysis Results From Soil Samples At Jensen Drum Site With
laboratory numbers 8TFAKC46 03 and 04

Results Reported in mg/kg

Element	03	04
Antimony	13	
Barium	182	117
Beryllium	3	1
Cadmium	1	1
Chromium	17	8
Cobalt	4	2
Copper	34	18
Lead	158	127
Mercury		0.4
Nickel	17	5
Zinc	381	333

Table 3 Organic Analysis Results From Drum
and Soil Sample at Jensen
Drum Site With Chemical Properties of Substances Detected.

Sample #	Substance	Concentration	Toxicity Properties
02	2,4 - Dimethylphenol	366 ug/L	An equivocal tumorigenic agent; high oral, intra-peritoneal and intravenous. Disaster hazard: when heated to decomposition it emits toxic fumes.
	1 Bis - (2-ethylhexyl) phethalate	235 ug/L	Teratogenic effects; gastro-intestinal tract effects; possible human carcinogen; high intravenous; low oral, and intra-peritoneal; mild irritation effects skin, eye, and systemic. Disaster hazard: when heated to decom-position it emits toxic fumes.
	Benzoic acid	515 ug/L	High toxicity by vapor inhalation, a moderate skin irritant. Disaster hazard: When heated to decomposition it emits toxic fumes.
03	2 - Methylnaphthalene	28,500 ug/kg	Low oral. Disaster hazard: when heated to decomposition it emits toxic fumes.
05	Naphthalene	210 ug/L	Moderate oral; high intra-peritoneal and intravenous. An equivocal tumorigenic agent. Poisoning may occur by ingestion of large doses, inhalation or skin absorption. Moderate fire hazard when exposed to heat or flame.
	Phenanthrene	25 ug/L	Neoplastic effects; an equivocal tumorigenic agent, mutagen. High intravenous; moderate oral. Skin photo-

			sensitizer. A slight fire hazard. Disaster hazard: when heated to decomposition it emits toxic fumes.
	Fluoranthene	23 ug/L	An equivocal tumorigenic agent; high intravenous, moderate oral and skin, mutagenic. Slight fire hazard when exposed to heat or flame. Disaster hazard: when heated to decomposition it emits toxic fumes.
	Pyrene	13 ug/L	Mutagenic; an equivocal tumorigenic agent; a skin irritant. Disaster hazard: when heated to decomposition it emits toxic fumes.
06	2,4 - Dimethyphenol	1370 ug/L	Mutagenic; an equivocal tumorigenic agent; a skin irritant. Disaster hazard: when heated to decomposition it emits toxic fumes.
	Isophorone	129 ug/L	Serious eye, nose and throat irritant by inhalation; seriously toxic by inhalation

Table 4
Informaton Compiled From Drum Labels

	Label Information	Contents	Full/Partial	Comments
1	Pelican Mudd Co. 713-952-7400			
2	Ribelin			
3	Pelican Mudd Co. 713-952-7400			
4	None			leaking
5	None			
6	Aspha Mul			
7	Mil Chem 390 Essex Ln P.O. Box 22111 Houston, TX 77227	Carbo-Tec - L		
8	N/A		Part	
9	N/A		Part	
10	N/A		Part	
11	N/A		Part	
12	N/A		Part	
13	Banner Labs Inc.			
14	N/A		Part	
15	N/A		Part	
16		Polyester Styrene Vinyl Toluene Acrylate ?		UN 1866, Un 1860 Hlth-2,Fire-3, Rx-2,PPE-1
17	N/A	Aircraft Lab Odor Control Compound		
18	N/A		Part	
19	N/A		Part	
20	N/A	posibly oil	Full	
21	N/A	black laquer		haraful Flammable liquid
22	N/A	methylimidazole		UN 2735
23	N/A	methylimidazole		UN 2735
24	Ashland Oil	N/A	N/A	N/A
25	Ashland Oil	N/A	N/A	N/A
26	N/A	paint	Full	UN 1263, ???
27	N/A	paint	Full	UN 1263, ???
28	N/A	paint	Full	UN 1263, ???
29	Ashland Oil			UN 1866
30	Ashland Oil			UN 1866
31	N/A	paint	Full	UN 1263, ???
32	N/A	paint	Full	UN 1263, ???
33	Ashland Oil			UN 1866
34	N/A		Part	open
35	Ashland Oil			
36	Ashland Oil			
37	Ashland Oil			
38	Ashland Oil			
39	Ashland Oil			
40	Ashland Oil			
41	Conoco		Part	Hazardous Waste EPA waste #189 (or 89) TXD 981544230 or

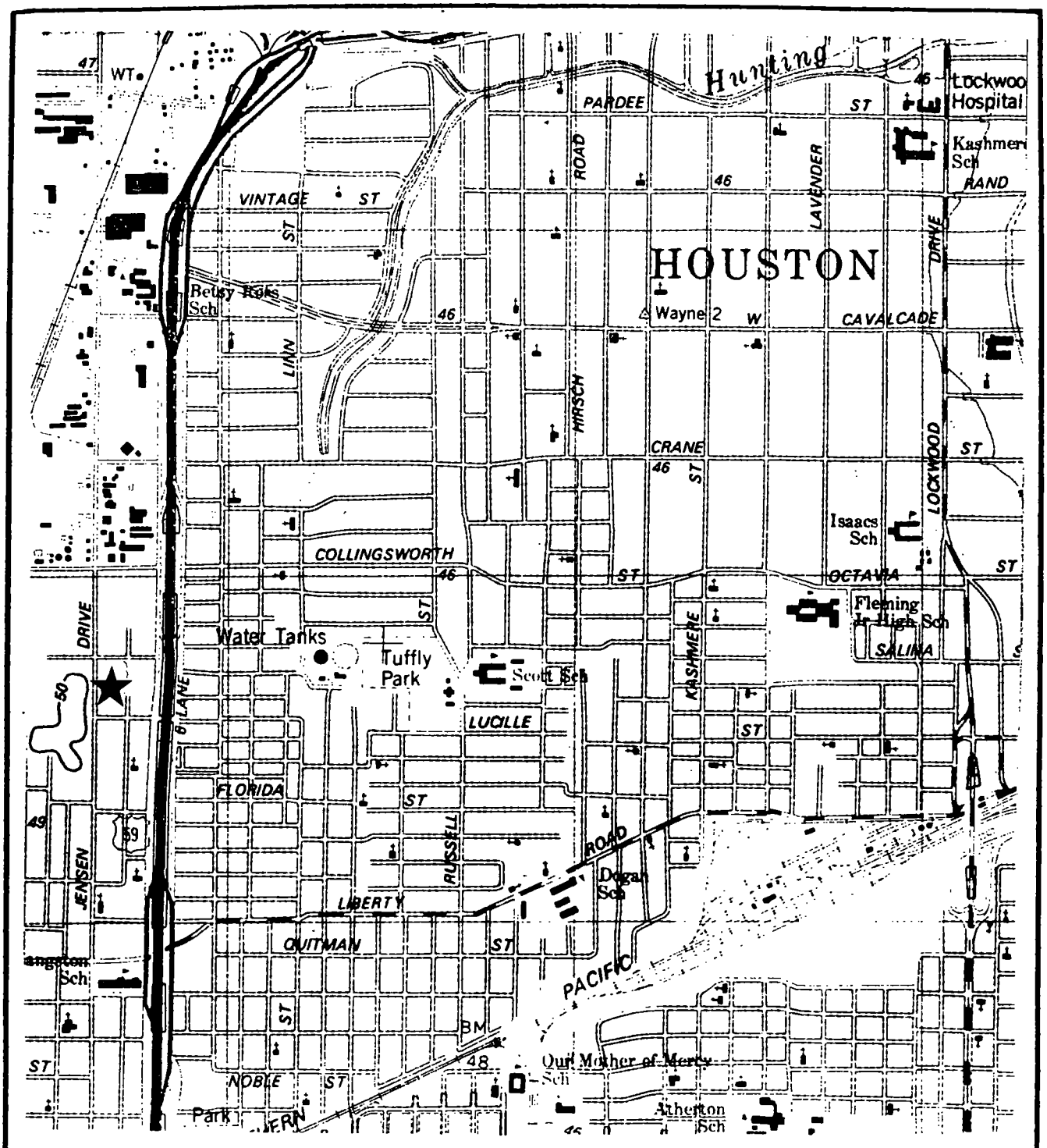
42	Ashland Oil	laquer		
43	Ashland Oil			
44	Ashland Oil			
45	PC Paint	laquer		
46	Ashland Oil shipped to Hines Pottery 10450 West Gulfbank Dr. Houston, TX			
47	Ashland Oil shipped to Hines Pottery 10450 West Gulfbank Dr. Houston, TX			suite ?, unopened
48		waste	part	rainwater
49	Reichhold Chemical Houston, TX or 525 N. Bdwy White Plains, NY	polyester resin		UN 1866, leaking flamm liq Reichhold per- formance technol.
50	Reichhold Chemical Houston, TX or 525 N. Bdwy White Plains, NY	polyester resin		UN 1866, leaking flamm liq Reichhold per- formance technol.
51	Ashland Chemical			UN 1866
52	PC Speciality System	laquer		
53	Cheatron Chemical Fresno, CA	unsaturated polyester resin vinyl toluene acrylate monomer styrene		UN 1866
54	Ashland Chemical			
55	N/A	waste polymer		solid, open
56	PC Speciality System			
57	N/A	xylol resin		sludge
58	???			UN 1760, paraffin odor waste, carr. B
59	Imperial Chemical Speciality Chemical Manchester, England			prod code - 05198 UN 1760
60	unnumbered drums			corrosive liq
61	unnumbered drums			NOS, stain on ground
62	unnumbered drums			2 yards, odor in area
63	unnumbered drums			same
64	unnumbered drums			same
65	unnumbered drums			same
66	unnumbered drums			same
67	unnumbered drums			same
68	unnumbered drums			same
69	unnumbered drums			same
70	unnumbered drums			same
71	unnumbered drums			same
72	unnumbered drums			same
73	unnumbered drums			same
74	unnumbered drums			same

75	NL ???			
76	N/A			
77	N/A		part	
78	N/A		full	
79	N/A		full	
80	N/A		full	
81	N/A	sulfuric acid	part	UN 1790,corroding
82	N/A		full	
83	Ethyl Corp	alcohol & hydro-carbon oils		BPAL 20+
84	N/A	not oil	full	
85	N/A		full	
86	N/A		full	
87	N/A			
88	Ashland Chemical		full	UN 1933,across

List of Attachments:

Topographic Location Map (Figure 1)
Location Sketch (Figure 2)
Site Sketch, North Side of Site (Figure 3)
Site Sketch, Northeast side of Site (Figure 4)
Site Sketch, Southeast side of Site (Figure 5)
Site Sketch, Warehouse (Figure 6)
Photographs
Unused Photographs and Negatives
Records of Communication
Logbook Copies
Information From Drum Labels
Sample Custody Form
Analytical Results
Deed Information
Copy of TDD #: T06-8810-28

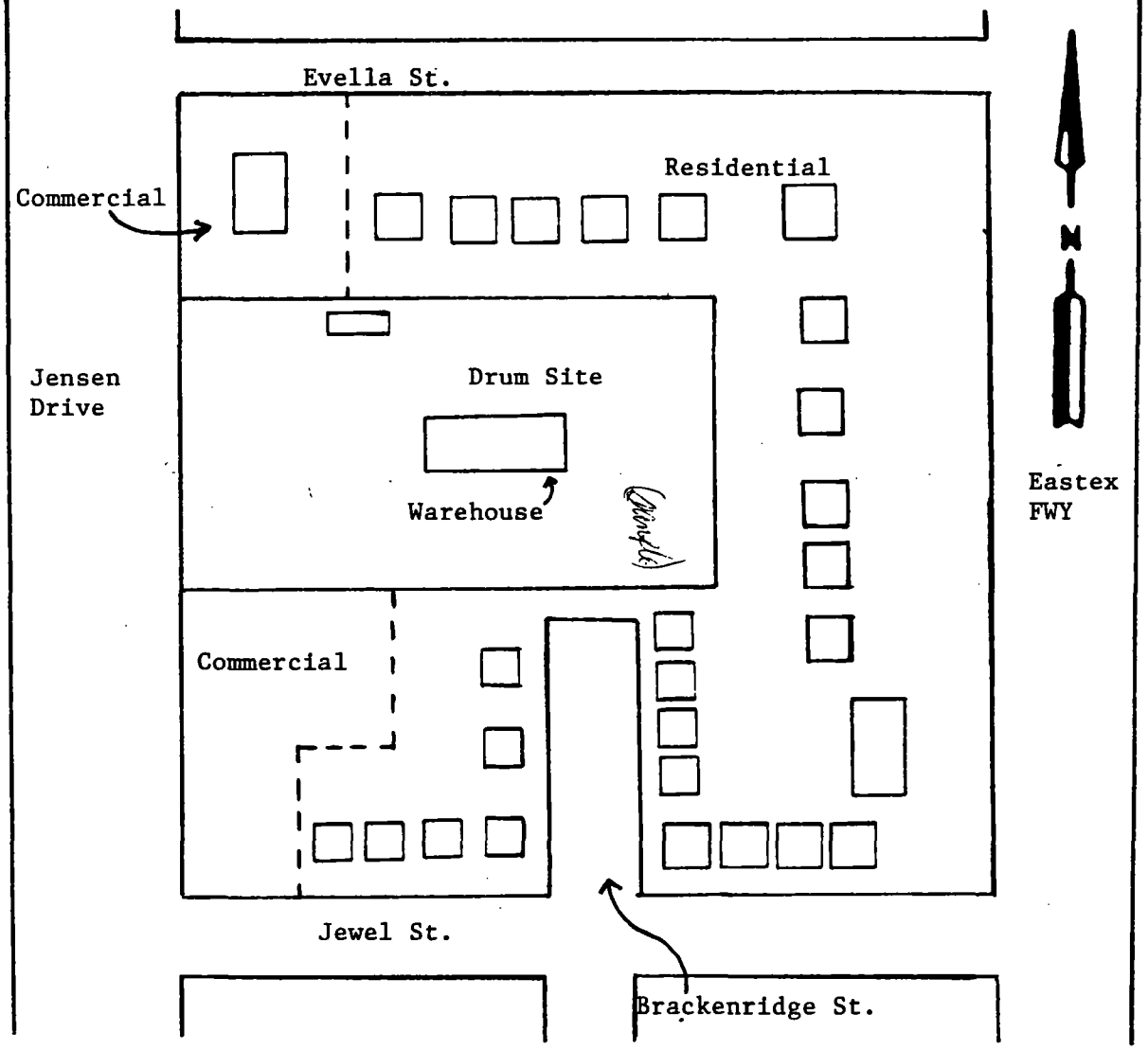
Figure 1



	Ecology and Environment, Inc. Technical Assistance Team RegionVI	Case No: N/A	TDD No: T06-8810-28
		PAN: TTX 0829 SAB	Date: 11/10/88
		Originator: Patricia Herrera	

Houston - Settegast Quadrant
Houston - Harris County
Topographic Location Map
Jensen Street Drum Site

Figure 2



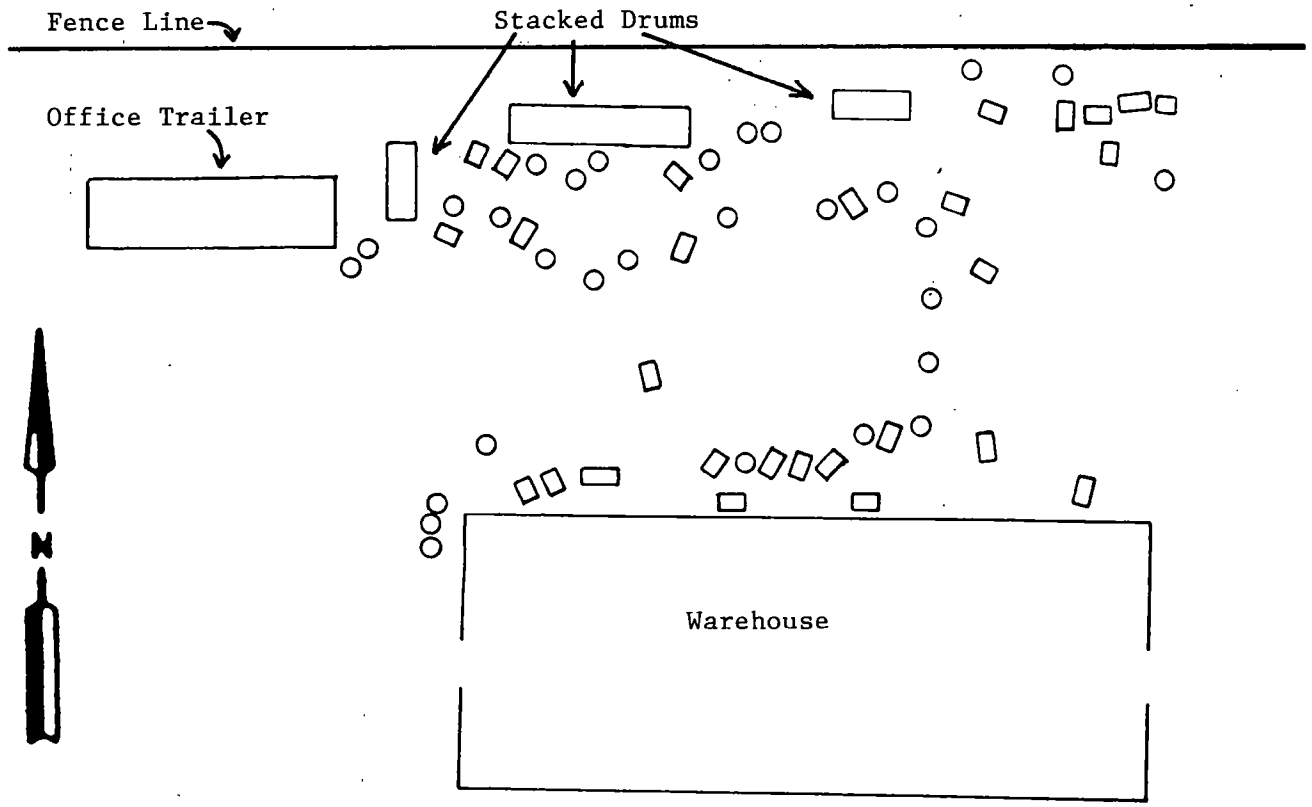
Sketch of location
of Jensen Drive
drum site showing
proximity to residences

Not To Scale

	Ecology and Environment, Inc. Technical Assistance Team RegionVI	Case No: N/A	TDD No: T06-8810-28
		PAN: TTX 0829 SAB	Date: 10-18-88
		Originator: Michael C. Taormina	

Site Sketch
Jensen Street Drum Site
Houston, Texas

Figure 3



Location of drums and other objects at the Jensen Drive drum site (north side of warehouse).

○ Upright drums

□ Overturned drums

▭ Vehicles

Not To Scale

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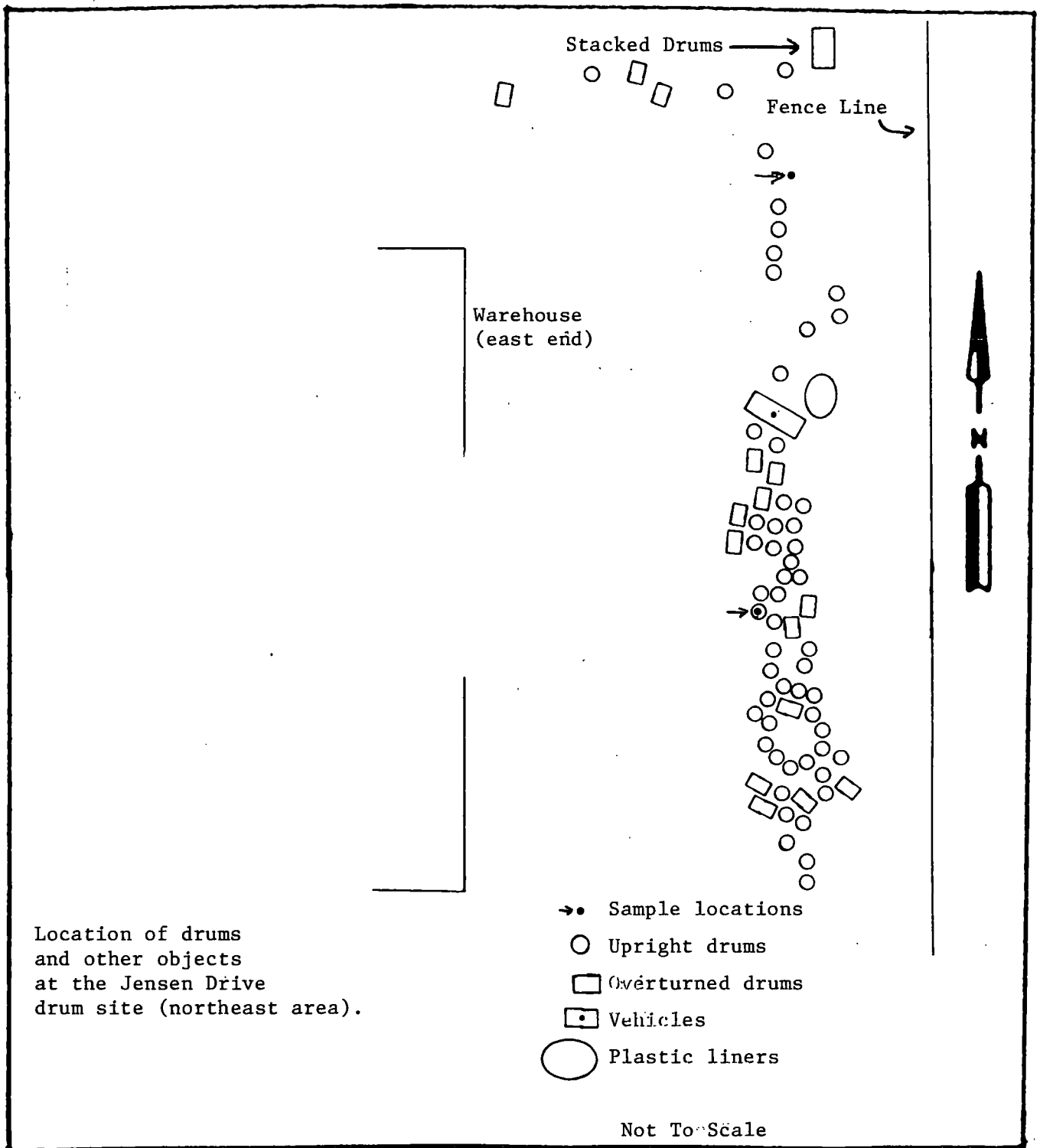
Figure 4



Location of drums
and other objects
at the Jensen Drive
drum site (northeast area).

Not To Scale

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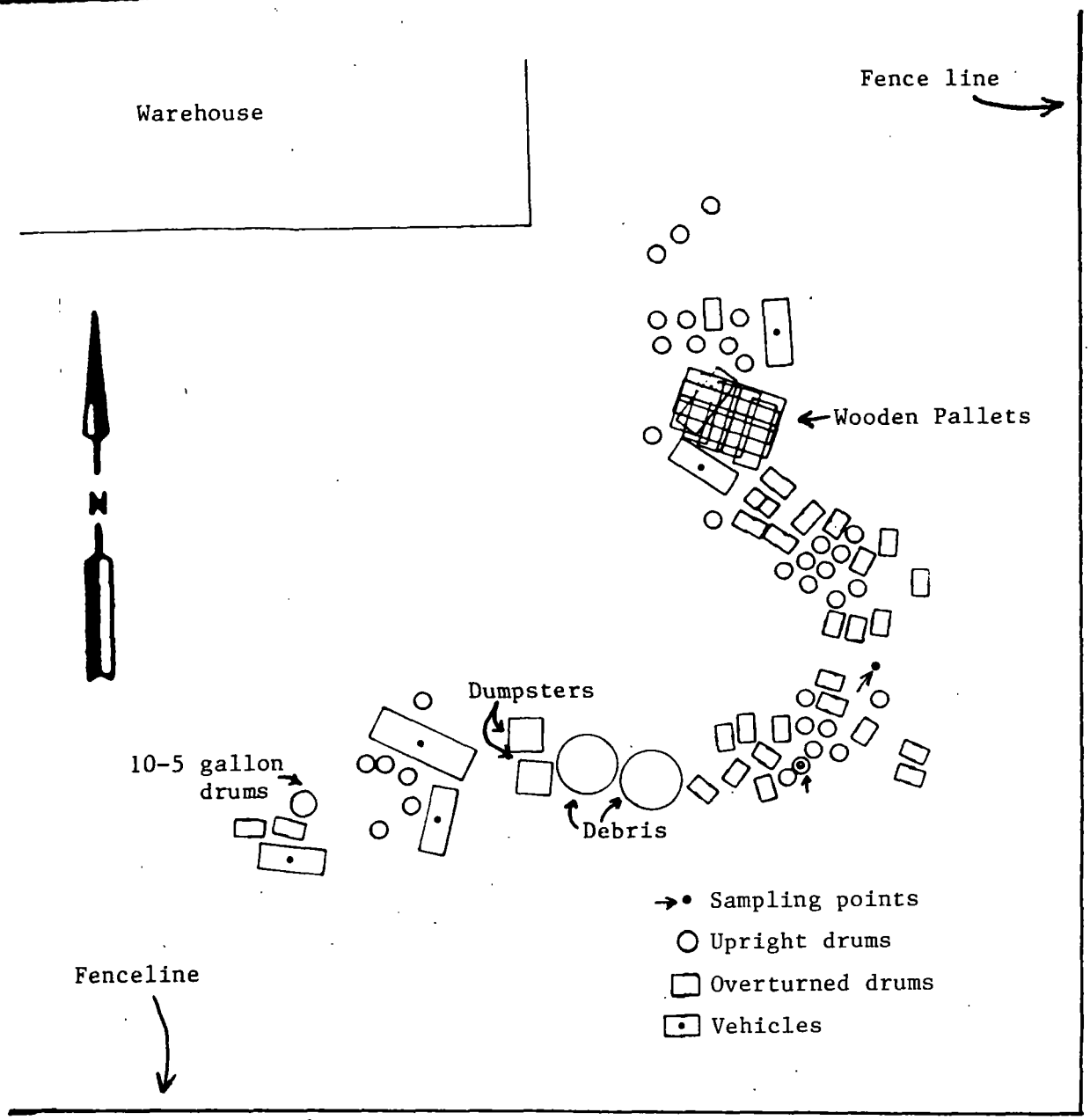
Figure 5



Location of drums and other objects at the Jensen Drive drum site (southeast corner).

Not To Scale

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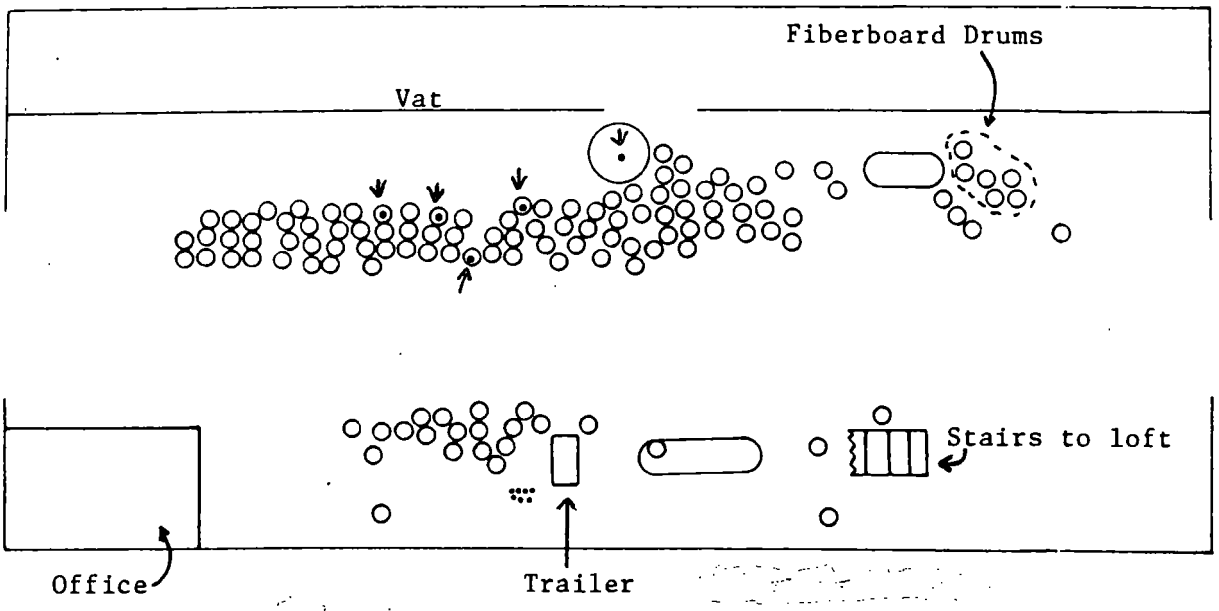
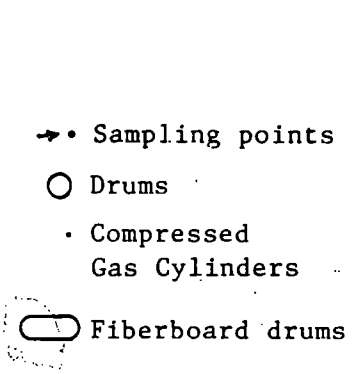
Figure 6





Sketch of warehouse
at Jensen Drive drum site

Not To Scale

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